

STATE OF COLORADO



May 28, 2009

Bureau of Land Management
Attn: Nick Douglas
Minerals & Realty Management
Mail Stop: LS 807
1849 C Street, NW
Washington, D.C. 20240

Re: *Notice: Potential for Oil Shale Development; Withdrawal of the Call for Nominations -- Oil Shale Research, Development, and Demonstration (R, D, and D) Program and Request for Public Comment, 74 Fed. Reg. 8983 (Feb. 27, 2009)*

Dear Mr. Douglas,

On January 15, 2009, the Department of the Interior (DOI) announced that it was soliciting nominations for a second round of oil shale research, development, and demonstration (RD&D) leases. 74 Fed. Reg. 2611 (Jan. 15, 2009). In this announcement, DOI stated that it would offer parcels up to 640 acres for oil shale RD&D activities under a 10-year lease agreement, and that such leases would be eligible for conversion to a 20-year commercial oil shale lease after production of commercial quantities of shale oil from the lease and after meeting requirements outlined in 43 C.F.R. § 3926.10.

On February 27, 2009, DOI published notice that the new Administration intended to review and reconsider certain aspects of the January 15 call for nominations for oil shale RD&D leases. 74 Fed. Reg. 8983 (Feb. 27, 2009). In particular, this notice withdrew the earlier call for nominations and sought comment on the terms and conditions of a potential second round of RD&D leasing, including lease size, lease duration, the rules governing conversion of the RD&D lease to a commercial lease, the royalty rate upon such conversion, environmental and economic diligence, and the need for preference right lease acreage.

Northwest Colorado is home to extraordinary oil shale resources, among the richest in the world, yielding 25 gallons of oil or more per ton of rock. Areas of Colorado's oil shale country are said to yield an average of 2 million barrels of oil per acre -- with some areas yielding much more than this -- and the USGS recently estimated that the area holds over 1.5 trillion barrels of in-place oil shale resources. Successful development of this resource could provide a substantial new source of domestic oil for the United States, which would have positive implications for our national energy policy and national security.

Because oil shale development creates potential opportunities for all Coloradans, and all Americans, with respect to energy security, energy affordability, economic security, and economic development, the State of Colorado has consistently supported research and development efforts. Colorado is currently home to five federal oil shale RD&D leases, totaling 800 acres. According to plans submitted with the RD&D nominations, these five 160-acre RD&D tracts contain an estimated 1.5 billion barrels of oil shale resources in place. Additionally, nearly 25,000 acres in Colorado are held by RD&D lessees under preference right to obtain a commercial oil shale lease; these lands contain up to 48 billion barrels of in-place shale oil resources, the equivalent of about four Prudhoe Bay oilfields. Colorado continues to support these oil shale research efforts as an important step towards understanding which oil shale technologies may prove viable and what the associated costs, impacts, and necessary mitigation measures will be.

To date, however, none of the federal RD&D tracts in Colorado has been permitted for active mining, and none has initiated construction activities. Nearly a quarter of the lease period has passed. We are lacking information on the status of the current RD&D lessees' activities and the prospects for moving these projects forward. Without this information and the answers to key questions regarding oil shale development, the State cannot make an informed recommendation, and DOI cannot make an informed decision about the need for and the potential benefits of additional RD&D leasing -- including the appropriate scope, terms, and focus of such leasing. It is vital that DOI obtain this information to ensure eventual commercialization of this important resource.

Prior to offering additional RD&D leases, Colorado recommends that DOI engage in a mid-term assessment of the five RD&D leases in Colorado to determine their technology status, the relevant economics, the resource demands, and the obstacles preventing more substantial progress. Such an effort should likely involve the Department of Energy and the Environmental Protection Agency; and it could be undertaken by the National Academy of Sciences, the Office of Management and Budget, the RAND Corporation, or some other credible, independent body. Such an assessment should focus on efforts to advance the science of oil shale development technology. Currently, little is known about the status of technology development on the current RD&D leases; mid-term review could determine whether companies currently holding federal RD&D leases are actively pursuing research activities. Existing diligence requirements should be reviewed, and their effectiveness in moving projects toward technology development should be assessed -- this is critical to the terms and conditions of any future leasing. Also, there has been no comprehensive effort to review oil shale research activities taking place on private land. A mid-term assessment is necessary to look into these important questions, and it might identify technology information gaps or limitations that would then be the focus of any additional RD&D leases.

Not only would such a status review help determine whether further federal RD&D leasing is needed, but it would also inform decisions concerning what lease terms are justified and necessary to encourage private investment, to ensure that appropriate royalty rates are established, and to prevent unacceptable impacts to the environment, communities, and landscape of Colorado. The goal is the commercial production of oil from shale; therefore, a mid-term assessment would help to ensure that any further RD&D leasing efforts are tailored in such a way that they are likely to lead to eventual commercialization of this nationally important resource which has been studied since the 1870's.

In its comments on the Oil Shale and Tar Sands Programmatic Environmental Impact Statement in 2008, Colorado identified several key areas in which information necessary to make an informed decision about a commercial oil shale leasing program is currently lacking. A mid-term assessment of

the existing RD&D leases should determine what information (1) has been generated and (2) is expected to be generated by development of these leases. This will assist in the determination of whether additional RD&D leases are necessary to provide the information required to make informed decisions regarding commercial development.

Nonetheless, should DOI seek to offer additional RD&D leases at this time, we urge such an offering be conservative in size, scope, and terms. Given the magnitude of the resource at stake and the potential benefits from its commercialization, any RD&D leasing should be targeted at proposals that are most likely to produce successful technologies and complement those at the existing RD&D sites. RD&D leasing should focus on the most viable technologies and on companies who will move forward diligently with RD&D activities, rather than tying up significant public resources for speculation.

Should additional RD&D leasing occur, we urge DOI to offer leases that are no larger than necessary to enable effective research, development, and demonstration activities. In November 2004, DOI initially proposed 40-acre RD&D leases. 69 Fed. Reg. 67935 (Nov. 22, 2004). Six months later, DOI offered leases representing a 400% expansion -- 160 acres -- for RD&D activities, plus preference rights to an additional 4,960 acres. 70 Fed. Reg. 33753 (June 9, 2005). In January of this year, DOI proposed offering 640-acre RD&D leases, which it explicitly found were large enough to provide reserves sufficient to support a commercial operation. 74 Fed. Reg. 2611 (Jan. 15, 2009). We are concerned that RD&D leases are becoming too large and could function as a back door to commercial leasing. While it is difficult to determine with precision the proper size of RD&D leases given the dearth of information on the costs and recovery rates of various technologies, we must remember the scale of the shale oil resource in Colorado's Piceance Basin and the significant benefit to industry from obtaining a federal RD&D lease. A single acre in this region may contain more than 2 million barrels of shale oil resources; thus even a 40-acre tract may contain 80 million barrels or more -- available to RD&D lessees at no cost and likely sufficient to encourage investment. We therefore urge DOI to offer tracts that are no larger than necessary to enable effective RD&D activities. Commercialization should be a different decision and a different process.

In its notice, DOI requested comments on whether there is a need for additional preference right lease acreage. In its January solicitation of nominations, DOI found, based on significant interest in response to the original RD&D lease offerings, that "incentives for R, D, and D beyond those conferred by the R, D, and D lease itself, are not needed." 74 Fed. Reg. at 2612. We agree with this assessment, given the significant shale oil resources granted in the RD&D lease at no cost for the lease. RD&D leases should be focused on efforts to conduct research and development, rather than commercialization. DOI should separately consider how to conduct a commercial leasing program and what inducements may be necessary.

We urge DOI to include stringent requirements for diligence in any RD&D leases it issues. These should include benchmarks for activities, even during the initial planning stages. For example, the RD&D lease could require operators to initiate application for other required federal, state, and local permits within two years of lease issuance. The diligent development milestones set out in DOI's oil shale leasing regulations could serve as a useful guide in determining appropriate diligence requirements for RD&D leases. See 43 C.F.R. §3930.30. However, such milestones should consider realistic timeframes for all necessary permits. As we noted above, the current federal RD&D tracts in Colorado are nearly a quarter into their initial lease period yet none has initiated permitting for active mining or construction. The public interest is ill-served by speculative leasing, wherein a company obtains rights to federal resources and locks them away from competition without developing them. RD&D leases should

include provisions ensuring that lessees meet work requirements or milestones to ensure diligent pursuit of RD&D activities. Additionally, DOI should explore whether RD&D leases should be transferable, and on what terms, in order to avoid creating a secondary market for federal oil shale resources that were made available at no cost to lessees.

We also urge DOI to include lease provisions designed to ensure that RD&D activities do not result in significant impacts to the environment, communities, or landscape of Northwest Colorado. This should include requirements to perform baseline monitoring and analyses as well as construction, operational, and post-operational monitoring and analyses to provide accurate information about the effects RD&D activities are having on the environment. It should also include provisions to ensure that additional RD&D leasing is not inconsistent with the need to conduct landscape-scale planning. Because the oil shale resources of the Piceance Basin are largely unleased, DOI has a unique opportunity to plan development so that oil shale development shares infrastructure, is clustered so as to minimize fragmentation, continues to support multiple uses on public lands, and does not result in unacceptable pressures on the communities of the region. For example, DOI could offer RD&D leases that are adjacent to existing RD&D leases, so as to prevent piecemeal sprawl of isolated research projects.

Additionally, RD&D leases should only be offered if they ensure that the public will benefit. Companies seeking an RD&D lease should be required to convince DOI that they have a potentially viable technology that will materially advance the science of shale oil development. Leases should require that both planning and operational details be shared with the DOI, state, and local regulatory agencies, subject to appropriate protections for proprietary information, in order to assess the potential for the technology to lead to commercialization and to begin to address any potential environmental impacts or challenges posed by the technology. As discussed above, such information is necessary to give federal, state, and local decision makers the opportunity to make sound public policy decisions and to plan for the future commercialization of Colorado's oil shale resource.

Finally, should a second round of RD&D leases be offered, we urge DOI to carefully review lease nominations. In addition to the 15 pieces of minimum information set out in the 2005 solicitation, 70 Fed. Reg. at 33754-55, we urge DOI to consider whether the nominee currently holds a federal RD&D lease, the extent to which the nominee holds private oil shale resources on which it could conduct research and development activities, the nominee's financial capability to conduct and reclaim RD&D activities (including the potential to bond for water quality and other impacts to the public health, safety, welfare, and the environment for which bonding authority currently does not exist), and the degree to which the proposed technology is unique, appears promising, and will move us closer to commercialization of the resource.

Additionally, we urge you to consider the extent to which activities proposed on an RD&D lease have the potential to provide answers to some of the most persistent questions concerning commercialization of oil shale. These questions should be asked regarding the technology's use at both an RD&D scale and at a commercial scale, and they include:

- What are the technology's water demands?
- What are the technology's potential effects on the quality of surface and ground water resources?
- What are the energy requirements of the technology, and how would they be met?
- What are the costs of development of the technology?
- What is the likely recovery rate of the technology?

- How would commercialization of the technology affect wildlife?
- What are the potential employment and infrastructure needs associated with the technology?
- What are the environmental and health effects of the technology?
- What are the processing requirements for the shale oil produced by the technology, and how would this be done?
- How would shale oil be transported from the proposed site?

We continue to support RD&D in order to provide answers to these important questions, which will assist federal, state, and local policymakers in making informed decisions regarding the economic, environmental, and community impacts of oil shale development and potential commercial leasing. Accordingly, we urge DOI to consider carefully the extent to which activities proposed on individual RD&D leases would contribute to our current understanding.

Thank you for this opportunity to comment. We look forward to continuing to work cooperatively with DOI, BLM, and the industry to ensure that the significant challenges associated with oil shale development are addressed in a thorough and protective manner.

Sincerely,



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Colorado Department of
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James B. Martin
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